

WHAT IS CLAIMED IS:

1. An arrangement for the identification of a substrate, in particular a semiconductor wafer, having at least one identification marking that is located in a predefined position with respect to a position mark on the edge zone of the substrate, comprising
 - a turntable for rotating a substrate placed thereon about a rotation axis;
 - an illumination source and a receiving device for evaluating the intensity of the light emerging from the illumination source, the illumination source and receiving device being arranged in such a way that the edge zone of the substrate, upon rotation thereof, influences the light intensity striking the receiving device;
 - a device for reading the identification marking, having a sensing region that senses only a subregion of the substrate placed on the turntable, the position of the sensing region relative to the rotation axis being modifiable; and
 - a calculation device that calculates, from the intensity changes ascertained during the rotation,
 - a manipulated variable for a correction rotation angle about the rotation axis for alignment of the identification marking with respect to the sensing region, and
 - a manipulated variable for a correction motion for changing the position of the sensing region with respect to the rotation axis or with respect to the actual position of the identification marking, and outputs them to a positioning device.
2. The arrangement as defined in Claim 1, wherein the reading device is movable toward and away from the rotation axis as a function of the actual position of the identification marking.

3. The arrangement as defined in Claim 2, wherein the reading device is arranged on a carriage having a linear guidance system.
4. The arrangement as defined in claim 1, wherein the identification marking contains an OCR-readable code, and the reading device is designed to recognize such codes.
5. The arrangement as defined in claim 1, wherein the reading device is configured to read multiple identification markings applied onto sides of the substrate opposite one another.
6. The arrangement as defined in claim 1, wherein the illumination source and the receiving device are arranged opposite one another in such a way that upon rotation of the turntable, the edge zone of a substrate placed on the turntable projects into the light beam directed onto the receiving device.
7. The arrangement as defined in Claim 6, wherein the illumination device and the receiving device are together movable toward and away from the turntable.
8. The arrangement as defined in Claim 6, wherein the receiving device and the illumination device are provided, together with the reading device, on the carriage.
9. A method for the identification of a substrate, in particular a semiconductor wafer, having at least one identification marking that is located in a predefined position with respect to a position mark on the edge zone of the substrate, the method comprising:
 - rotating the substrate about a rotation axis;

- evaluating a change in light intensity influenced, during the rotation of the substrate, by its edge zone in correlation with the position of the position mark;
 - determining the actual position of the identification marking from the profile of the change in intensity;
 - calculating from it a manipulated variable for a correction rotation angle about the rotation axis for alignment of the identification marking with respect to the sensing region, and a manipulated variable for a correction motion for changing the position of the sensing region with respect to the rotation axis or with respect to the actual position of the identification marking;
 - performing the alignment of the sensing region relative to the actual position of the identification marking on the basis of said manipulated variables and
 - reading out the information of the identification marking for further processing.
10. The method as defined in Claim 9, wherein as a function of the actual position of the identification marking, a correction motion for the sensing region with respect to the rotation axis toward or away from the latter is calculated and caused.
 11. The method as defined in Claim 9, wherein the identification marking contains an OCR-readable code.
 12. The method as defined in Claim 9, wherein the rotation through the correction rotation angle for alignment of the identification marking with reference to the sensing region, and the correction motion for modifying the position of the sensing region with respect to the rotation axis or with respect

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to the actual position of the identification marking, are accomplished simultaneously.

13. The method as defined in Claim 9, wherein the correction motion is performed as a straight-line motion.

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